Go to <http://youtu.be/TWZ6y4Bhj9Q> and watch the video. As you are watching you may want to stop the video as you answer the questions below. Use complete sentences.

Answer these first three questions before you begin the movie.

1. What does NASA stand for?
2. What does ESA stand for?
3. Why do you think some telescopes are in orbit while others are located on Earth?
4. Who was the first astronomer to use a telescope? What was his nationality?
5. How many miles is 600Km? Look up the conversion rate and show your work below.
6. What is the primary job of a mirror in any telescope?
7. What does a spectrograph allow you to see?
8. How does a spectrograph work?
9. What is the advantage to having a telescope in space?
10. What are adaptive optics and why are they needed?
11. What type of light is blocked by the Earth’s atmosphere?
12. After watching this video look back at question 3 and re-answer it in this space.
13. In the space below, draw a model of the EMS and indicate which wavelengths of light can only be detected from space.